Appl. No. 09/838,010
Pre-Appeal Brief Request for Review

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JAN 16 2006

IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

Appl. No.   :   **09/838,010**

Applicant(s)   :   **KOBILANSKY, Alexander**

Filed   :   **4/19/2001**

TC/A.U.   :   **2625**

Examiner   :   **COUSO, Yon Jung**

Atty. Docket :   **US-010211**

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On: <u>16 January 2006</u>

By: _____

Title: **METHOD AND APPARATUS FOR REMOVING DEFECTS IN AN IMAGE SEQUENCE**

Pre-Appeal Brief Request for Review

Mail Stop **AF**
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the final Office action of 13 December 2005, applicant(s) request(s) review of the final rejection in the above referenced application. No amendments are being filed with this request. This paper is being filed with a notice of appeal.

This review is requested for the reason(s) stated on the attached sheet(s).

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REMARKS

Clear errors in the examiner's rejection(s):

The Examiner has rejected claims 1-10 under 35 U.S.C. 101 because the claimed invention can be performed by a person, and is not limited to a computer-implemented embodiment. The applicant(s) respectfully traverse this rejection. In Ex parte Lundgren, Appeal No. 2003-2088, heard 20 April 2004, the Board of Patent Appeals and Interferences concluded that "there is currently no judicially recognized separate 'technological arts' test to determine patent eligible subject matter under section 101."

As stated in 35 U.S.C. 101, "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title", and does not limit such processes to computer-implemented processes, as asserted by the Examiner.

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The examiner's omissions of one or more essential elements needed for a prima facie rejection:

The invention addresses the correction of defects in an image, wherein the user is provided non-image data (such as MPEG motion estimation information) to facilitate corrections during an interactive session.

Claim 1, upon which claims 2-5 depend, claims a method that includes detecting a defect in an image; generating non-image data indicating properties of the image; and providing, responsive to a user request, the non-image data to an interactive session to repair the image.

Claim 11, upon which claims 12-16 depend, claims a system that includes a processor configured to detect a defect in an image; generate non-image data indicating properties of the image; and provide, responsive to a user request, the non-image data to an interactive session to repair the image.

Claim 18, upon which claim 20 depends, claims an article of manufacture that includes computer readable program code means comprising: a step to detect a defect in an image; a step to generate non-image data indicating properties of the image; a step to provide, responsive to a user request, non-image data to an interactive session to repair the defect.

MPEP 2142 states:

> "To establish a *prima facie* case of obviousness ... the prior art reference (or references when combined) *must teach or suggest all the claim limitations...* If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness."

The Office action rejects claims 1-20 under 35 U.S.C. 103(a) over Zhang et al. (WO 99/14950, hereinafter Zhang, also available as USP 6,512,795) and Sycara et al. (USP 5,574,640, hereinafter Sycara).

Neither Zhang nor Sycara teach or suggest detecting a defect in an image and providing non-image data indicating properties of the image to an interactive session to repair the image, as claimed in each of claims 1-5, 11-16, 18, and 20.

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PAGE 3/8 * RCVD AT 1/16/2006 4:13:21 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-6/25 * DNIS:2738300 * CSID:12152437525 * DURATION (mm-ss):02-34

The Office action relies upon Zhang for providing non-image data indicating properties of the image to facilitate repair of the image, and asserts that Zhang provides this teaching at page 7, lines 3-32. The applicant respectfully disagrees with this assertion.

Zhang specifically teaches using image data to repair the image. Zhang compares the values of pixels surrounding a missing block (the primary tag region) to values of pixels in a previous block (the secondary tag region), to find a block that is most likely to correspond to the missing block (the error-concealing block). As specifically taught by Zhang:

> "When an error or loss of information occurs, pixels surrounding the region of error and/or loss are taken. ... The algorithm then performs a full search within the previous picture for the best match to the available lines of decoded pixels from the current picture in the sense of minimizing the mean absolute difference between the pixels in the current and previous frames. The macroblock of data which is surrounded by the lines which best match the lines from the current picture is assumed to be the best match to the lost macroblock." (Zhang, page 7, lines 8-22)

This best-matching block is then substituted for the missing block, as an "error-concealing region". Because Zhang processes the video information at the decoder motion vector estimation block 16 of FIG. 2, the missing block is re-encoded as a motion vector, the same form that the missing block would have had, for consistent subsequent processing in a motion compensation block 15.

Because Zhang specifically teaches uses image data (the surrounding pixels) to find the best-matching error-concealing block, Zhang cannot be said to teach providing non-image data to facilitate repair of the image, as asserted in the Office action.

Because the Office action fails to provide prior art that teaches or suggests each of the limitations of the applicant's claims 1-5, 11-16, 18, and 20, the applicant respectfully maintains that the rejection of these claims is improper.

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Claim 6, upon which claims 7-10 depend, claims a method that includes evaluating non-image data associated with an image indicating properties of the image that may be utilized to repair the defect; and repairing the defect using the indicated properties of the image.

Claim 17 claims a system that includes a processor configured to: evaluate non-image data associated with an image, the non-image data indicating properties of the image that may be utilized to repair a defect, and repair the defect using the indicated properties of the image.

Claim 19 claims an article of manufacture that includes computer readable program code means comprising: a step to receive a user identification of a defect; a step to provide non-image data associated with the image, the non-image data indicating properties of the image that may be utilized to repair the defect; and a step to repair the defect using the indicated properties of the image.

Neither Zhang nor Sycara teaches or suggests non-image data indicating properties of the image that may be utilized to repair a defect, as claimed in each of claims 6-10, 17, and 19.

The Office action relies upon Zhang for teaching non-image data indicating properties of the image that may be utilized to repair a defect, and asserts that Zhang provides this teaching at page 7, lines 3-32. The applicant respectfully disagrees with this assertion.

As noted above, Zhang uses image data (the value of pixels surrounding a missing block) to identify a likely error-concealing block in a prior image to effect repair of the image, and does not teach the use of non-image data indicating properties of the image that may be utilized to repair a defect, as claimed in each of claims 6-10, 17, and 19.

Because the Office action fails to provide prior art that teaches or suggests each of the elements of claims 6-10, 17, and 19, the applicant respectfully maintains that the rejection of these claims is improper.

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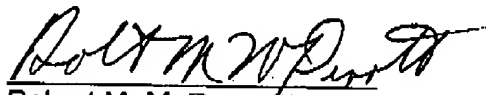## CONCLUSION

Each of the claims 1-5, 11-16, 18, and 20, claims providing non-image data related to an image to an interactive repair session. The Office action fails to identify prior art that provides this teaching, and therefore fails to establish a prima facie case for rejecting these claims.

Each of the claims 6-10, 17, and 19 claims providing non-image data indicating properties of the image that may be utilized to repair a defect. The Office action fails to identify prior art that provides this teaching, and therefore fails to establish a prima facie case for rejecting these claims.

Respectfully submitted,

Robert M. McDermott.
Reg. 41,508
Att'y for Applicant(s)

1824 Federal Farm Road
Montross, VA 22520
Phone: 804-493-0707
Fax: 215-243-7525